

Claims

1. A deformable endoscope that has one or more light/image transmission passages (17, 19) and in which at least one additional instrument (25) is provided, wherein ^{the} unit of endoscope (11) and ^{the} additional instrument (25) has a non-round cross-section (43) along a longitudinal section (13) (insertion-section) to be introduced into a human or animal body orifice (41); wherein furthermore the light/transmission passage or the plurality of light/image transmission passages (17, 19) – in particular together with at least one work channel (33) – form ^{the} a closed unit (11) (fibroscope part) which can be separated from the additional instrument (25), wherein furthermore ^{Fiberscope} the fibroscope part (11) and the additional instrument (25) are displaceable relative to one another along their longitudinal directions; and wherein a holding device is provided for the holding/and or guiding of the fibroscope part (11) and the additional instrument (25) relative to one another.
2. An endoscope in accordance with claim 1, characterised in that the additional instrument (25) can be alternatively fixed at the fibroscope part (11) by means of the holding device or released from the fibroscope part (11) to allow a relative movement along the longitudinal direction of the additional instrument (25) and the fibroscope part (11).
3. An endoscope in accordance with any of the preceding claims, characterised in that the holding device has at the distal end of the fibroscope part (11) for the acceptance of the additional instrument

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(25) a loop (27) to engage around the additional instrument (25) and whose free length can preferably be actively modified.

4. An endoscope in accordance with claim 3, characterised in that the
5 loop (27) is held by ^afixation forceps (21) which are guided in ^{the}a work
passage ^{channel}(33, 45) provided at the fibroscope part (11); or in that the
loop (27) projects out of a work channel (33, 45) – at both the distal
and proximal ends – [?]provided at the fibroscope part (11).

- 10 5. An endoscope in accordance with any of the preceding claims,
 15 characterised in that a groove (49) or a holding clamp (53), on the
 one hand, and a corresponding rail (47) or corresponding rail
 segments, on the other, are provided as a holding device at the
 fibroscope part (11) and at the additional instrument (25), or vice
 versa.

6. An endoscope in accordance with any of the preceding claims, characterised in that at least one permanent magnet (55) and at least one counter-element (25) made of permanently magnetic or magnetic material are provided as a holding device at the fibroscope part (11), on the one hand, and at the additional instrument (25) on the other, or vice versa.

7. An endoscope in accordance with claim 6, characterised in that the
counter-element is an integral part of the additional instrument (25)
or of the fibroscope part (11); and/or in that the permanent magnet
(55) is provided at a plurality of sections of the fibroscope part (11)
or of the additional instrument; and/in or that the permanent

magnet (55) and/or the counter-element have a covering (57) of plastic.

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An endoscope in accordance with any of the preceding claims, characterised in that a catch element (61) and a hook device (59) are provided as the holding device at the fibroscope part (11), on the one hand and at the additional instrument (25) on the other, or vice versa.

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An endoscope in accordance with claim 8, characterised in that the catch element (61) and/or the hook device (59) are each provided at the distal end of the fibroscope part (11) or of the additional instrument (25) respectively; and/or in that the catch element (61) is formed by a laterally projecting button lug and the hook device (59) by a laterally projecting undercutting lug; and/or in that the catch element (61) and/or the hook device (59) are formed in a manner flattened towards the proximal end of the endoscope.

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An endoscope in accordance with any of the preceding claims, characterised in that at least one fastening hoop (29) is provided along the insertion section (13) of the endoscope and spaced from its distal end for the guidance of the additional instrument (25).

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An endoscope in accordance with any of the preceding claims, characterised in that a jacket hose (31) or a side cover (45) is provided at the fibroscope part (11) as a holding device for the acceptance of the additional instrument (25), said jacket hose (31)

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12. An endoscope in accordance with claim 11, characterised in that the jacket hose (31) surrounds both the fibroscope part (11) and the additional instrument (25) and/or is elastically formed with respect to its diameter; and/or in that the jacket hose (31) or the side cover (45) is formed displaceably with respect to the fibroscope part (11), in particular due to a rail-groove connection (Fig. 15b).
13. A deformable endoscope that has one or more light/image transmission passages (17, 19) and in which at least one additional instrument (25) is provided, wherein the unit of endoscope (11) and additional instrument (25) has a non-round cross-section (43) along a longitudinal section (13) (insertion section) to be inserted into a human or animal body orifice (41), and wherein the light/image transmission or the plurality of light/image transmission passages (17, 19) and the additional instrument (25) form a closed unit.
14. An endoscope in accordance with any of the preceding claims, characterised in that the cross-section (43) of the insertion section (13) is matched to the body orifice (41); and/or in that the endoscope is formed as a pharyngo-oesophago-gastroscope for the examination of the pharynx, oesophagus and/or stomach, wherein the cross-section (43) of the insertion section (13) is matched to the cross-section of a human meatus of the nose (41).

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15. An endoscope in accordance with any of the preceding claims, characterised in that the cross-section dimension of the insertion section (13) is larger in one direction, in particular larger at least by a factor of 1.5, than in a direction orthogonal thereto; and/or in that the cross-section (43) of the insertion section (13) corresponds to an isosceles triangle or a mirror-symmetrical trapezium, each with rounded corners and preferably with a base length of at most approximately 3.5 mm.

16. An endoscope in accordance with any of the preceding claims, characterised in that the additional instrument (25) is formed by biopsy forceps, an aspirator/injector probe, a pH probe, a pressure measuring instrument and/or a Bilitec measuring probe; and/or in that the maximum cross-section dimension of the additional instrument (25) amounts to at most approximately 3 mm and preferably at most approximately 2 mm.

17. An endoscope in accordance with any of the preceding claims, characterised in that the additional instrument (25) is provided laterally spaced with respect to the centre of the cross-section (43) of the insertion section (13); and/or in that the fibroscope part (11) and the additional instrument (25) are displaceable relative to one another by a length of up to approximately 5 cm or of up to approximately 35 cm along their longitudinal directions.

18. An endoscope in accordance with any of the preceding claims, characterised in that the endoscope has a Bowden cable (23) by which the endoscope can be actively swivelled in the direction of its

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